

PENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

Date of mailing (day/month/year) 06 January 2000 (06.01.00)	in its capacity as elected Office
International application No. PCT/SE99/00605	Applicant's or agent's file reference 2998401
International filing date (day/month/year) 16 April 1999 (16.04.99)	Priority date (day/month/year) 17 April 1998 (17.04.98)
Applicant	
DANIELSON, Magnus et al	

- 1. The designated Office is hereby notified of its election made:**

in the demand filed with the International Preliminary Examining Authority on:

02 November 1999 (02.11.99)

in a notice effecting later election filed with the International Bureau on:

2. The election was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Marie-José Devillard</p> <p>Telephone No.: (41-22) 338.83.38</p>
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P. ENT COOPERATION TREATY

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From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

Date of mailing (day/month/year)
06 January 2000 (06.01.00)

AWAPATENT AB
P.O. Box 45086
S-104 30 Stockholm
SUÈDE

Applicant's or agent's file reference
2998401

IMPORTANT NOTIFICATION

International application No.
PCT/SE99/00605

International filing date (day/month/year)
16 April 1999 (16.04.99)

1. The following indications appeared on record concerning:

the applicant the inventor the agent the common representative

Name and Address

NET INSIGHT AB
Ingenjörsvägen 3
S-117 43 Stockholm
Sweden

State of Nationality

SE

State of Residence

SE

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

the person the name the address the nationality the residence

Name and Address

NET INSIGHT AB
Västberga Allé 9
S-126 30 Stockholm
Sweden

State of Nationality

SE

State of Residence

SE

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.36

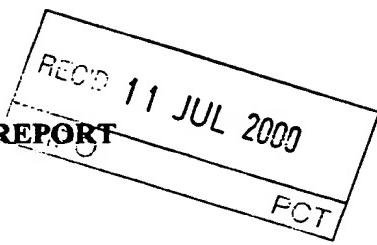
Authorized officer

Marie-José Devillard

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference 2998401	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/SE99/00605	International filing date (day/month/year) 16.04.1999	Priority date (day/month/year) 17.04.1998
International Patent Classification (IPC) or national classification and IPC7 H 04 J 3/16, H 04 L 5/22		
Applicant NET INSIGHT AB et al		

<ol style="list-style-type: none"> This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p> This report contains indications relating to the following items: <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application

Date of submission of the demand 02.11.1999	Date of completion of this report 28.06.2000
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88	Authorized officer Stig Edhborg/EE Telephone No. 08-782 25 00

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE99/00605

I Basis of the report

1. This report has been drawn on the basis of (*Remplacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

the international application as originally filed.

the description, pages _____, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

the claims, Nos. _____, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. _____, filed with the letter of _____,
Nos. _____, filed with the letter of _____.

the drawings, sheets/fig _____, as originally filed,
sheets/fig _____, filed with the demand
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

the description, pages _____

the claims, Nos. _____

the drawings, sheets/fig _____

3. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE99/00605

V. Resoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-30</u>	YES
	Claims	_____	NO
Inventive step (IS)	Claims	<u>1-30</u>	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	<u>1-30</u>	YES
	Claims	_____	NO

2. Citations and explanations

The invention relates to a method and an apparatus for allocating time slots to circuit-switched channels established to comprise one or more respective time slots in a recurrent frame of a time division multiplexed network.

The object of the invention is to provide a flexible way of controlling the allocation and deallocation of time slots to channels, also taking into consideration the situation when there are no free slots available.

According to the invention, a time slot allocated to said channel is associated with a selected level, of at least two available levels, of priority. Decicsions as to whether or not to deallocate said time slot from said channel is then based upon a comparision of said selected level of priority and a level of priority associated with a request for a time slot for another channel.

The following documents are cited in the International Search Report:

- D1: US 5532937 A
- D2: US 5343474 A
- D3: US 4494232 A
- D4: WO 9736402 A1
- D5: BOHM, C. et al., The DTM Gigabit Network, Journal of High Speed Networks 3 (1994), pages 109 to 126
- D6: GAUFFIN L. et al., Multi-gigabit networking based on DTM, Computer Networks and ISDN Systems, 24(1992), April, No. 2, pages 119 to 130

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: v

However, the documents D1-D6 do not disclose such a method or apparatus, but reveal only the general state of the art.

Therefore, the invention claimed in claims 1-30 is considered to be novel (N), to involve an inventive step (IS) and also to have industrial applicability (IA).

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/SE99/00605

VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

There is a misspelling in claim 2, "dellacate" should be corrected to "deallocate".

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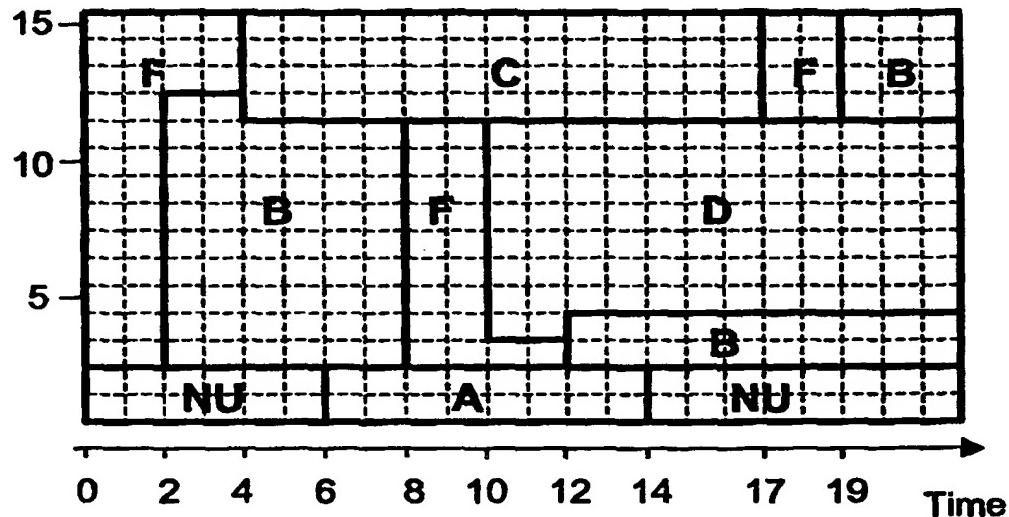
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ :	A3	(11) International Publication Number:	WO 99/55036
H04J 3/16, H04L 5/22		(43) International Publication Date:	28 October 1999 (28.10.99)
(21) International Application Number:	PCT/SE99/00605	(81) Designated States:	AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date:	16 April 1999 (16.04.99)	(30) Priority Data:	9801335-2 17 April 1998 (17.04.98) SE
(71) Applicant (for all designated States except US):	NET INSIGHT AB [SE/SE]; Ingenjörsvägen 3, S-117 43 Stockholm (SE).	(72) Inventors; and	
(75) Inventors/Applicants (for US only):	DANIELSON, Magnus [SE/SE]; Kyrkvägen 3 A, S-182 74 Stocksund (SE). LINDGREN, Per [SE/SE]; Maria Prästgårdsgatan 12, S-118 52 Stockholm (SE). WAHLUND, Thomas [SE/SE]; Hammerstavägen 134, S-122 60 Enskede (SE).	(74) Agent:	AWAPATENT AB; P.O. Box 45086, S-104 30 Stockholm (SE).

(54) Title: METHODS AND APPARATUSES FOR ALLOCATING TIME SLOTS TO CIRCUIT-SWITCHED CHANNELS



(57) Abstract

The present invention relates to methods and apparatuses for allocating time slots to circuit-switched channels established to comprise one or more respective time slots in a recurrent frame of a time division multiplexed network. According to the invention, a time slot allocated to said channel is associated with a selected level, of at least two available levels of priority. Decisions as to whether or not to deallocate said time slot from said channel is then based upon a comparison of said selected level of priority and a level of priority associated with a request for a time slot for another channel.

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DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

INTERNATIONAL SEARCH REPORT

1

International application No.

PCT/SE 99/00605

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H04J 3/16, H04L 5/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: H04J, H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5343474 A (KEVIN R. DRISCOLL), 30 August 1994 (30.08.94), column 3, line 44 - column 4, line 26 --	1-30
A	US 5532937 A (MICHAEL J. GRAZIANO ET AL), 2 July 1996 (02.07.96), see the whole document --	1-30
A	US 4494232 A (WILLIAM A. DAMBRACKAS ET AL), 15 January 1985 (15.01.85), column 2, line 11 - line 41, claim 1 --	1-30
A	WO 9736402 A1 (NET INSIGHT AB), 2 October 1997 (02.10.97), see the whole document --	1-30

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"I"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the international filing date	"Y"	document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

29 November 1999

Date of mailing of the international search report

30-11-1999

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. + 46 8 666 02 86

Authorized officer

Stig Edhborg/cs
Telephone No. + 46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No. PCT/SE 99/00605
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BOHM, C. et al., The DTM Gigabit Network Journal of High Speed Networks 3 (1994), pages 109 to 126 --	1-30
A	GAUFFIN L. et al., Multi-gigabit networking based on DTM, Computer Networks and ISDN Systems 24(1992) April, No. 2, pages 119 to 130 -----	1-30

INTERNATIONAL SEARCH REPORT

Information on patent family members

02/11/99

International application No.

PCT/SE 99/00605

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 5343474 A	30/08/94	DE 69418459 D		00/00/00
		EP 0692168 A,B		17/01/96
		JP 8508860 T		17/09/96
		WO 9423516 A		13/10/94
US 5532937 A	02/07/96	NONE		
US 4494232 A	15/01/85	NONE		
WO 9736402 A1	02/10/97	AU 2314797 A		17/10/97
		EP 0850429 A		01/07/98
		EP 0886934 A		30/12/98
		SE 9601130 D		00/00/00